

In the Claims:

The claims are as follows:

1. (Currently Amended) A method comprising:

a control system determining for a given activity a point of efficiency of a trainable subject with respect to at least one parameter, said point of efficiency occurring just prior to the trainable subject no longer being able to accommodate additional stress and entering a state of inefficiency or exhaustion causing the at least one parameter to vary differently than before ~~where efficiency is determined by a linear proportional rate of change in the at least one parameter;~~

a control system determining a range of tolerance surrounding the point of efficiency; and

training said trainable subject within said range of tolerance of said point of efficiency with respect to a state of accommodation until a state of inefficiency with respect to said at least one parameter or exhaustion occurs.

- 2-3. (Cancelled).

4. (Previously Presented) The method of claim 1, wherein the at least one parameter is one of a physical parameter, emotional parameter, and mental parameter of the trainable subject.

5. (Original) The method of claim 4, wherein the at least one physical parameter is selected from the group consisting of running turnover rate, stride length, stride strike

force, muscle contraction speed, muscle contraction profile, muscle contraction strength, weight lifted, electromagnetic activity profile, chemical activity profile, body temperature, and blood pressure.

6. (Original) The method of claim 4, wherein the at least one physical parameter is selected from the group consisting of heart rate, heart beat strength, respiration rate, VO_2 , perspiration rate, metabolic rate, blood flow, breathing rate, heat given off, and breath length.

7. (Original) The method of claim 4, wherein the at least one parameter is observed by a signal selected from the group of verbal utterance, physical motion.

8. (Previously presented) The method of claim 1, wherein the trainable subject is selected from the group consisting of an animal, a human, a group of humans, a group of animals, a cellular automata, a group of cellular automata, microbes, and plants.

9. (Withdrawn) A method comprising:

taking a measurement relating to at least one continuous variable with respect to which a subject may remain in a state of accommodation; and

training the subject so the value of the measurement of the at least one continuous variable changes.

10. (Withdrawn) The method of claim 9, wherein the at least one continuous variable is a quantity of time.

11. (Withdrawn) The method of claim 9, wherein a state of accommodation includes at least one substantially consistent parameter.

12. (Withdrawn) The method of claim 11, wherein the at least one substantially consistent parameter is a physical parameter of the subject.

13. (Withdrawn) The method of claim 12, wherein the physical parameter is selected from the group consisting of running turnover rate, stride length, stride strike force, muscle contraction speed, muscle contraction profile, muscle contraction strength, electromagnetic activity profile, chemical activity profile, body temperature, and blood pressure.

14. (Withdrawn) The method of claim 12, wherein the physical parameter is selected from the group consisting of heart rate, heart beat strength, respiration rate, VO_2 , perspiration rate, metabolic rate, blood flow, heat given off, breathing rate, and breath length

15. (Withdrawn) The method of claim 10, wherein the quantity of time shortens or function thereof is less.

16. (Withdrawn) The method of claim 10, wherein the quantity of time lengthens or function thereof is more.

17. (Currently Amended) A method comprising:

- providing a performance system;
- activating the performance system;
- recording at least one parameter of the performance system;
- measuring at least one parameter of a subject;
- determining an at least one point of efficiency parameter of the subject with respect to a state of accommodation by changing the at least one parameter of the performance system until the at least one parameter of the subject substantially changes beyond a given tolerance function;
- determining a range of tolerance surrounding the point of efficiency, said point of efficiency occurring just prior to the subject no longer being able to accommodate additional stress and entering a state of inefficiency or exhaustion causing the at least one parameter of the subject to vary differently than before ~~where efficiency is determined by a linear proportional rate of change in the at least one parameter;~~ and
- training the subject within said range of tolerance of the point of efficiency so the duration the subject can maintain the point of efficiency changes.

18. (Previously Presented) The method of claim 17, wherein the at least one parameter of the subject is a physical parameter.

19. (Original) The method of claim 18, wherein the physical parameter is selected from the group consisting of running turnover rate, stride length, stride strike force, muscle

contraction speed, muscle contraction profile, muscle contraction strength, electromagnetic activity profile, chemical activity profile, body temperature, and blood pressure.

20. (Original) The method of claim 18, wherein the physical parameter is selected from the group consisting of heart rate, heart beat strength, respiration rate, VO_2 , perspiration rate, metabolic rate, blood flow, breathing rate, and breath length.

21. (Withdrawn) An apparatus comprising:

a performance system;

at least one sensor for measuring at least one parameter of a subject being trained or measured by the performance system; and

a control system for controlling at least one parameter of the performance system and for acquiring the measured at least one parameter of the subject from the at least one sensor.

22. (Withdrawn) The apparatus of claim 21, wherein the control system determines when the subject reaches a point of efficiency.

23. (Withdrawn) The apparatus of claim 21, further comprising a timer for recording an elapsed time.

24. (Withdrawn) The apparatus of claim 21, further comprising a memory device for storing information and data other than the parameter.

25. (Withdrawn) The apparatus of claim 24, further comprising a display device for displaying the information and data other than the parameter from the memory device.

26. (Withdrawn) The apparatus of claim 24, further comprising an output port for transmitting information and data other than the parameter from the memory device out to a printer or a remote computer.

27. (Withdrawn) The apparatus of claim 21, further comprising an input device for allowing an operator to enter commands into the control system.

28. (Withdrawn) The apparatus of claim 27, wherein the input device is selected from a group consisting of a keyboard, a mouse, a microphone, an optical motion sensor, and a keypad.

29. (Withdrawn) The apparatus of claim 21, wherein the at least one parameter of the subject is a physical parameter.

30. (Withdrawn) The apparatus of claim 29, wherein the physical parameter is selected from the group consisting of running turnover rate, stride length, stride strike force, muscle contraction speed, muscle contraction profile, muscle contraction strength,

electromagnetic activity profile, chemical activity profile, body temperature, and blood pressure.

31. (Withdrawn) The apparatus of claim 29, wherein the physical parameter is selected from the group consisting of heart rate, heart beat strength, respiration rate, VO_2 , perspiration rate, metabolic rate, blood flow, breathing rate, and breath length.

32. (Withdrawn) The apparatus of claim 21, wherein the performance system further includes a device selected from the group of a computer, a VCR, an auditory device, a visual device, a connection to a transmission system, or combinations thereof.

33. (Withdrawn) The apparatus of claim 32 wherein the transmission system is selected from the group of internet, intranet, telephone system, acoustic, short wave, satellite, cable TV system, and combinations thereof.